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ISSUES IN THE DESIGN OF AN APPLIED BEHAVIORAL SCIENCE COURSE FOR HEALTH ADMINISTRATION STUDENTS*

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May, 1975 WP # 789-75

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ISSUES IN THE DESIGN OF AN APPLIED BEHAVIORAL SCIENCE COURSE FOR HEALTH ADMINISTRATION STUDENTS[1]

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ABSTRACT

This paper deals with issues in the design and evaluation of an experiment in the transfer of knowledge between two fields. The body of knowledge under investigation is the applied behavioral sciences and the specific point of transfer is to managers of ambulatory health care delivery settings. The experiment is designed to test two broad assumptions:

1. There exists within the applied behavioral sciences knowledge, skills, models, etc. (already known to be relevant in non-health care settings) which are relevant to many of the problems facing managers in health care delivery settings;

2. This body of knowledge can be adapted and transferred via educational interventions (e.g. course curricula, teaching notes, training designs) to graduate students of health care management.

The issues discussed include questions of (1) what subjects/content; (2) what teaching technologies (e.g. lectures, exercises, courses, etc.) and (3) how to evaluate results.

INTRODUCTION - THE NEED

There is ever-increasing concern today about the nature of our health care distribution systems. While on the one hand there are demands for increased quality of care and for increased accessability to health care services for all echelons in our society, there are at the same time demands for an end to the spiraling costs of such care.

Increasingly, health care organizations are recognizing the need for more effective management as one solution to these problems. However, there is a set of conditions that make effective health care management difficult, including:

1. existence of health professionals untrained in management who "resist" administrative inputs;
2. a change in priorities toward ambulatory care settings which require new and different organization structures and processes;
3. difficulty in attracting highly qualified administrators, particularly in ambulatory care;
4. "crisis management" atmosphere reinforced by the "crisis care" model of medical care;
5. unclear criteria of performance;
6. dependence on outside funding rather than direct consumer support;
7. existence of multiple professional disciplines in health care, often with conflicting goals.

Against this general background, the authors have been working as management educators, researchers, and consultants in health care systems for several years in an attempt to transfer to these systems knowledge and skills from the applied behavioral sciences that have for many years been used very effectively in non-health care settings. These experiences have provided a first-hand view of both the kinds of skills that are necessary for managers in these settings, and some of the educational design issues that must be addressed if these skills are to be effectively transferred [1]. The remainder of this paper will address some of these questions as they specifically relate to the design of a course in the management of ambulatory care settings for graduate students in health administration.

WHY AMBULATORY CARE MANAGEMENT?

One of the principle areas of concern in health care management has been the administration of ambulatory care facilities. Clinics, out-patient departments, neighborhood health centers, etc. are experiencing administrative difficulties different from those found in more traditional hospital settings, and for which there is little administrative experience and few existing solutions. In addition, the problems and skills relevant to these settings are frequently overlooked in the curricula of schools of health administration which often focus more on hospital administration. Finally, because of this lack of attention in schools of health administration and the lower pay and perceived status for administrators in these settings, ambulatory care often attracts less well educated and/or qualified administrators. Given these problems, and the increased significance of these settings in our changing national priorities, ambulatory care management was chosen as an important focus for an educational intervention to improve the effectiveness of health care management.

WHO GETS THE COURSE?

The first strategy question to be decided concerned

[1]The work described in this paper has been supported by a grant from the Robert Wood Johnson Foundation.

what was the most appropriate target population for any educational intervention. The two main candidates were: (a) practicing managers in ambulatory care settings, or (b) graduate students in health administration schools.

The decision to focus on graduate students involved several considerations: (1) they are in a learning mode and may be more receptive to new ideas; (2) they have more time than the harried administrators to devote to an educational process; (3) there was the potential of changing some of their attitudes toward ambulatory care and perhaps influencing them to choose a career in this area; (4) they were more easily accessible in larger numbers and more likely to respond well to "teachers."

The major point in favor of practicing managers was that they had the experience to understand and appreciate the kinds of managerial issues that would be dealt with in the course, and they had an arena in which to practice any new knowledge or skills acquired in a course. While the decision was made to work with students, both of these latter considerations were important in the subsequent design of the graduate student course.[2]

COURSE OBJECTIVES

The problems of health care managers discussed earlier and the decision to focus on a student-oriented course led to the following course objectives:

1. Knowledge. To develop in students an awareness and understanding of the problems faced by managers of ambulatory health care facilities.
2. Skills. To develop in students skills in diagnosing and solving the problems found in ambulatory health care facilities.
3. Attitudes. To develop in students more positive attitudes concerning the manageability of ambulatory health care facilities.
4. Behavior Changes. To insure that students will use the techniques learned in this course when they enter their work settings; and to increase the number (or likelihood) of students choosing careers in ambulatory care settings.

APPLICATION OF A LEARNING THEORY

Achieving these objectives depends upon solving a set of course design issues with respect to course content (subject matter), teaching technolgoies (cases, lectures, exercises, etc.), positioning in the curriculum, etc. Decisions concerning these design issues are often made in a non-systematic fashion based on convenience, tradition, materials available, etc. Experience has indicated, however, that to be effective these decisions need to be made based on two considerations: (1) what are the objectives themselves and how can their attainment be facilitated by course design; and (2) what are characteristics of the learners and how can the course design be most congruent with their styles of learning.

Solutions to these questions were based on a theory of learning which suggests that [2]:

1. learning is a four-stage cycle which includes:
   a. the concrete experiencing of events, situations, etc.;
   b. the observation of and reflection on these events;
   c. the forming of abstract conceptual constructs concerning these observations;
   d. the active implementation of these conceptual theories or constructs in everyday behavior, leading back to the concrete experiencing of events.
2. people develop preferences for and/or differential abilities in one or more of these stages of the learning cycle.

There are two implications to the above. The first is that the learning objectives of a course can only be achieved if the learning technology employed utilizes the learning modes that are congruent with the objectives. For example, it is difficult to teach skills (e.g. leading a group meeting) which are in modes 1 (concrete experience) and 4 (active experimentation) solely through lecture inputs which put students in modes 2 (reflection) and 3 (abstract conceptualization). While all four modes are necessary to effective learning, the active and concrete modes are particularly important in skill development.

The second implication of this learning theory is that different kinds of learners with different preferences or abilities for different modes of learning may require different emphasis in teaching technologies. For example, an abstract-reflective student may be more comfortable in a lecture format while a concrete-active student may prefer exercises, role-plays, or simulations.

The implication of all this is that course design must be based on an understanding of the learning style requirements of both the course objectives, and the learners. In this case the course objectives were of a highly applied, active, day-to-day management nature that stressed behavioral change as well as conceptual understanding. Thus in this course it was critical to include opportunities for students to practice newly learned skills (concrete-active) as well as the more traditional concern with understanding the rationale behind them (abstract-reflective). In addition, previous research with managers in industry and health care has indicated that they tend to have active, pragmatic learning styles [2]. The implication here is that the course would have to be problem-oriented (applied and practical) and utilize exercises, simulations, and role plays (active) in addition to more traditional cases, lectures, and seminars.

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[2]Another different training intervention has been designed for use with practicing management groups from ambulatory care facilities. For more information on this course contact the authors at M.I.T. Sloan School of Management, 50 Memorial Drive, Cambridge, Massachusetts 02139.

COURSE CONTENT

In accordance with the course objectives (to achieve behavioral changes) and the styles of students (active pragmatic) the course content was organized primarily by problem and skill areas rather than by conceptual areas as most courses are organized. From the authors' experience, the following areas were identified as most crucial:

Structuring Organizations

Managers in primary ambulatory care settings will, invariably, find that the structure of their organization does not support and reinforce required coordination between health deliverers. Most often, the existing structure reflects a traditional form of organization (adopted from more traditional delivery settings) which does not account for some unique and/or different demands which characterize primary, ambulatory care settings. Managers in these settings thus need the knowledge and skills which will enable them (a) to test the appropriateness of different organizational structures, (b) design new structures which are more appropriate, and (c) initiate the changes required to implement these new structures.

Planning and Goal Setting

Crisis management appears to be the rule rather than the exception in most primary, ambulatory care settings. Developing the goals, objectives, and future-oriented thinking which would mitigate against a crisis orientation is particularly difficult in these settings because of the degree of uncertainty in funding, legislation, community relations, etc. The manager must be able to respond to and manage multiple and often conflicting demands (e.g. demands for quantity vs. quality care; community needs vs. funding requirements). These differences and conflicting priorities are an inherent aspect of the situation. They will not disappear. Managers in these settings need tools and models to develop goal setting and planning procedures which minimize a crisis management orientation.

Clarifying and Allocating Role Responsibilities

Considerable time and energy is wasted in many primary, ambulatory care settings due to the absence of clearly defined and/or agreed-upon role responsibilities. Managers in these settings need to be able to define and clarify their own role responsibilities, to help others define their roles, and to negotiate and resolve differences which will develop. Furthermore, they need to recognize that this is not a "once and forever" procedure. Inherent in these settings appears to be the need to continuously test, up-date, and renegotiate appropriate role responsibilities.

Making More Effective Decisions

Managers in these settings often recognize the importance of involving others in the process of decision-making. On the other hand, they recognize the inefficiencies which result when "everything gets decided by consensus." Even in those decision making situations which do require the involvement of others, managers experience great difficulty in effectively working in such group situations. The effective coordination of primary, ambulatory care requires that a manager in these settings (a) be able to choose from among a range of decision-making modes and (b) have certain skills to cope with those situations which require involvement of others in decision-making and problem solving.

Improving the Coordination Between Different Disciplines

The concept of coordinated care -- teamwork -- is a common general characteristic of all primary, ambulatory care settings. In many such settings, the concept becomes more formalized - teams are formally designated around interdependent tasks. Any team, to function at optimal effectiveness, will need to engage in some kind of educational or developmental process. Managers in these settings will need the knowledge and skills not only to (a) set up and structure teams where appropriate, but (b) to provide for and support activities aimed at the development of more effectively functioning teams.

Managing Change

Implicit in all of the above is the fact that the manager of a primary, ambulatory care setting needs to be a change agent. Knowledge, for example, about different organizational structures will be only minimally useful if the manager cannot initiate and manage the change process required to arrive at a new structure. The pressure for change will also be thrust upon the manager and his organization by forces beyond their control (e.g. environmental, societal, legislative forces). Managers in such settings thus need knowledge and skills to: (a) diagnose the need for a particular change; (b) test the organization's readiness; (c) develop strategies for change; (d) deal with resistance to change.

Attitudes

There are several underlying attitudes which are directly addressed in the course. Many managers and students preparing to be managers seem to avoid careers in primary, ambulatory care settings. This avoidance seems to be based on the attitude: "You can't get anything done in these settings. It's just too hard to try to work in those settings." A specific sub-element of this general attitude has to do with the nature of the relationship between managers and physicians. Quite frequently, these two parties avoid any substantive contact. When they do interact, the relationship is invariably strained. Often, neither the manager nor the physician has much empathy or understanding of the other's concerns and ways of thinking. The attitude and resulting behavior is one of competition and avoidance versus collaboration. The course is designed to help eliminate some of these attitudinal obstacles.

TEACHING TECHNOLOGY

Classroom Design

Because of the applied, skill-building emphasis of the course, and because of the active/pragmatic learning styles of the students, most of the subject sessions described provide opportunities for students to experience the problems being dealt with through exercises, simulations, etc., as well

as opportunities to practice newly learned behaviors. More conceptual inputs (lectures, readings, etc.) are provided where necessary to develop sufficient understanding of the problems being addressed to enable students to effectively diagnose and intervene in their on-the-job situations.

Positioning in the Curriculum

Another design issue concerns the positioning of a course within the two-year curriculum characteristic of most schools of health administration. To make the classroom work more relevant to students this course was designed to take advantage of the summer practicum experience in a health care facility that is required of students in many health administration schools.

In one experimental situation the course is being conducted simultaneously with the practicum experience to provide students with both clearer more concrete examples of the problems being addressed, and in areas in which they can "try out" any new skills, techniques, etc. that they learn. In a second experimental situation the course is being offered subsequent to a summer practicum experience. Differences between students' learning and application of new knowledge, skills, and attitudes in the two experimental situations will be noted. One assumption is that students who experience the course and the practicum simultaneously will demonstrate greater ability to apply their newly learned knowledge and skills, although both groups will show increased awareness and understanding of the problems being addressed in the course. A third experimental condition, not currently being studied would be to offer the course without any practicum experience.

Evaluation

Evaluating the impact of any classroom based experience is fraught with difficulties. In this case, the difficulty is enhanced by the desire to evaluate various aspects of the course design (e.g. placement of the practicum experience) in addition to the overall course impact. Therefore, there are two aspects to the evaluation.

1. Overall Course Impact. The course objectives stress changes in knowledge and skill levels, attitudes toward ambulatory care, and career plans. To this end attitudes toward ambulatory care and career plans are being measured by pre-course and post-course questionnaires. Knowledge and skill increases are being measured at three different levels:
   a. Subjective. Perceptions by students of the quality and relevance of the course.
   b. Objective. Demonstrated knowledge, skill, and attitude changes through classroom exams, casework, and term papers. The term paper is an interesting evaluation vehicle as students in one experimental site will be asked to submit two papers describing, analyzing, and recommending solutions with respect to the problems they observed in their summer practicum experience. One paper is due at the first formal class session following the practicum, while the other is due at the course's conclusion. Comparisons of the two should indicate increases in diagnostic and problem-solving ability.
   c. Behavioral. Demonstrated use of knowledge and skills in actual work settings. The only short-term source of this data will be from students' preceptors in their summer experiences. In one experimental situation where the course is given simultaneously with the summer practicum, preceptors will be asked to evaluate changes in student performance during the period of the course. In addition, these preceptors will be asked to compare the performance of these students with other students from previous summers who did not experience the experimental course. In both experimental situations preceptors will be asked to evaluate the students' final term papers describing their summer experience in terms of the accuracy of the diagnosis, and the usefulness of the recommendations made.

2. Evaluation of Learning Hypotheses. This second aspect of evaluation is an attempt to test some of the assumptions built into the course design.
   a. Placement of Practicum. As described, in one experimental site the practicum runs simultaneously with the course while in the other the practicum precedes the course. Comparisons between the two should indicate whether students in the first situation are better able to apply their newly learned skills.
   b. Styles. The learning styles of participants will be compared to see if the more active/pragmatic students learn more, are more satisfied, and show greater attitude change in this course design than the other learning styles. In addition, students will be asked to indicate which aspects of the course were most useful and their answers will be compared with their learning styles.

FOLLOW UP

The experimental courses are scheduled for the summer and fall of 1975. At that time initial results on the impact of the course will become available. The course design will be refined based on these results and then the final experiment will begin. This final experiment will test the hypothesis that a course of this kind can be successfully replicated, by existing faculty at schools of health administration, through the development of a detailed set of course materials. The widespread use of such a course, and the large scale development of skilled managers for health care systems is after all the ultimate objective.

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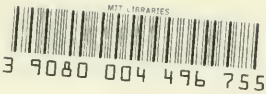
Date Due



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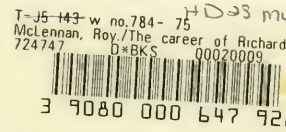

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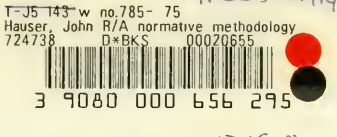

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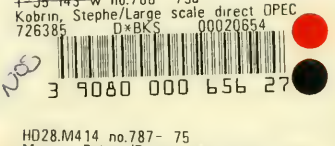

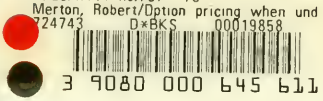

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